



IFWO

RAW SEQUENCE LISTING

DATE: 09/01/2004

PATENT APPLICATION: US/10/800,057

TIME: 12:59:08

Input Set : N:\Crif3\RULE60\10800057.raw

Output Set : N:\CRF4\09012004\J800057.raw

1 <110> APPLICANT: Sprecher, Cindy A.
 2 Kisiel, Walter
 3 Foster, Donald C.
 4 <120> TITLE OF INVENTION: NOVEL HUMAN KUNITZ-TYPE INHIBITORS
 5 AND
 6 METHODS RELATING THERETO
 7 <130> FILE REFERENCE: 93-14D3
 8 <140> CURRENT APPLICATION NUMBER: US/10/800,057
 9 <141> CURRENT FILING DATE: 2004-03-12
 10 <150> PRIOR APPLICATION NUMBER: US/10/680,684
 11 <151> PRIOR FILING DATE: 2003-10-07
 12 <150> PRIOR APPLICATION NUMBER: US/09/904,621
 13 <151> PRIOR FILING DATE: 2001-07-13
 14 <150> PRIOR APPLICATION NUMBER: PRIOR APPLICATION NUMBER: 09/265,627
 W--> 15 <151> PRIOR FILING DATE: PRIOR FILING DATE: 1999-03-09
 16 <150> PRIOR APPLICATION NUMBER: PRIOR APPLICATION NUMBER: 5,455,338
 W--> 17 <151> PRIOR FILING DATE: PRIOR FILING DATE: 1993-11-05

18 <160> NUMBER OF SEQ ID NOS: 15
 19 <170> SOFTWARE: FastSEQ for Windows Version 3.0
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 979
 23 <212> TYPE: DNA
 24 <213> ORGANISM: Homo sapiens
 25 <220> FEATURE:
 26 <221> NAME/KEY: CDS
 27 <222> LOCATION: (39)...(746)
 28 <400> SEQUENCE: 1
 29 ggacgccttg cccagcgggc cgcccgaccc cctgcacc atg gac ccc gct cgc ccc 56
 30 Met Asp Pro Ala Arg Pro
 31 1 5
 32 ctg ggg ctg tcg att ctg ctg ctt ttc ctg acg gag gct gca ctg ggc 104
 33 Leu Gly Leu Ser Ile Leu Leu Leu Phe Leu Thr Glu Ala Ala Leu Gly
 34 10 15 20
 35 gat gct gct cag gag cca aca gga aat aac gcg gag atc tgt ctc ctg 152
 36 Asp Ala Ala Gln Glu Pro Thr Gly Asn Asn Ala Glu Ile Cys Leu Leu
 37 25 30 35
 38 ccc cta gac tac gga ccc tgc cgg gcc cta ctt ctc cgt tac tac tac 200
 39 Pro Leu Asp Tyr Gly Pro Cys Arg Ala Leu Leu Leu Arg Tyr Tyr Tyr
 40 40 45 50
 41 gac agg tac acg cag agc tgc cgc cag ttc ctg tac ggg ggc tgc gag 248
 42 Asp Arg Tyr Thr Gln Ser Cys Arg Gln Phe Leu Tyr Gly Gly Cys Glu
 43 55 60 65 70
 44 ggc aac gcc aac aat ttc tac acc tgg gag gct tgc gac gat gct tgc 296

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```

45      Gly Asn Ala Asn Asn Phe Tyr Thr Trp Glu Ala Cys Asp Asp Ala Cys
46                      75                      80                      85
47      tgg agg ata gaa aaa gtt ccc aaa gtt tgc cgg ctg caa gtg agt gtg      344
48      Trp Arg Ile Glu Lys Val Pro Lys Val Cys Arg Leu Gln Val Ser Val
49                      90                      95                      100
50      gac gac cag tgt gag ggg tcc aca gaa aag tat ttc ttt aat cta agt      392
51      Asp Asp Gln Cys Glu Gly Ser Thr Glu Lys Tyr Phe Phe Asn Leu Ser
52                      105                      110                      115
53      tcc atg aca tgt gaa aaa ttc ttt tcc ggt ggg tgt cac cgg aac cgg      440
54      Ser Met Thr Cys Glu Lys Phe Phe Ser Gly Gly Cys His Arg Asn Arg
55                      120                      125                      130
56      att gag aac agg ttt cca gat gaa gct act tgt atg ggc ttc tgc gca      488
57      Ile Glu Asn Arg Phe Pro Asp Glu Ala Thr Cys Met Gly Phe Cys Ala
58      135                      140                      145                      150
59      cca aag aaa att cca tca ttt tgc tac agt cca aaa gat gag gga ctg      536
60      Pro Lys Lys Ile Pro Ser Phe Cys Tyr Ser Pro Lys Asp Glu Gly Leu
61                      155                      160                      165
62      tgc tct gcc aat gtg act cgc tat tat ttt aat cca aga tac aga acc      584
63      Cys Ser Ala Asn Val Thr Arg Tyr Tyr Phe Asn Pro Arg Tyr Arg Thr
64                      170                      175                      180
65      tgt gat gct ttc acc tat act ggc tgt gga ggg aat gac aat aac ttt      632
66      Cys Asp Ala Phe Thr Tyr Thr Gly Cys Gly Gly Asn Asp Asn Asn Phe
67                      185                      190                      195
68      gtt agc agg gag gat tgc aaa cgt gca tgt gca aaa gct ttg aaa aag      680
69      Val Ser Arg Glu Asp Cys Lys Arg Ala Cys Ala Lys Ala Leu Lys Lys
70      200                      205                      210
71      aaa aag aag atg cca aag ctt cgc ttt gcc agt aga atc cgg aaa att      728
72      Lys Lys Lys Met Pro Lys Leu Arg Phe Ala Ser Arg Ile Arg Lys Ile
73      215                      220                      225                      230
74      cgg aag aag caa ttt taa acattcttaa tatgtcatct tgtttgtctt      776
75      Arg Lys Lys Gln Phe
76                      235
77      tatggcttat ttgcctttat gggtgtatct gaagaataat atgacagcat gaggaacaa      836
78      atcattgggtg atttattcac cagtttttat taatacaagt cactttttca aaaatttga      896
79      tttttttata tataactagc tgctattcaa atgtgagtct accattttta atttatgggt      956
80      caactgtttg tgagactgaa ttc      979
82 <210> SEQ ID NO: 2
83 <211> LENGTH: 235
84 <212> TYPE: PRT
85 <213> ORGANISM: Homo sapiens
86 <400> SEQUENCE: 2
87      Met Asp Pro Ala Arg Pro Leu Gly Leu Ser Ile Leu Leu Leu Phe Leu
88      1                      5                      10                      15
89      Thr Glu Ala Ala Leu Gly Asp Ala Ala Gln Glu Pro Thr Gly Asn Asn
90      20                      25                      30
91      Ala Glu Ile Cys Leu Leu Pro Leu Asp Tyr Gly Pro Cys Arg Ala Leu
92      35                      40                      45
93      Leu Leu Arg Tyr Tyr Tyr Asp Arg Tyr Thr Gln Ser Cys Arg Gln Phe
94      50                      55                      60

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```

95      Leu Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Tyr Thr Trp Glu
96      65              70              75              80
97      Ala Cys Asp Asp Ala Cys Trp Arg Ile Glu Lys Val Pro Lys Val Cys
98              85              90              95
99      Arg Leu Gln Val Ser Val Asp Asp Gln Cys Glu Gly Ser Thr Glu Lys
100              100              105              110
101      Tyr Phe Phe Asn Leu Ser Ser Met Thr Cys Glu Lys Phe Phe Ser Gly
102              115              120              125
103      Gly Cys His Arg Asn Arg Ile Glu Asn Arg Phe Pro Asp Glu Ala Thr
104              130              135              140
105      Cys Met Gly Phe Cys Ala Pro Lys Lys Ile Pro Ser Phe Cys Tyr Ser
106      145              150              155              160
107      Pro Lys Asp Glu Gly Leu Cys Ser Ala Asn Val Thr Arg Tyr Tyr Phe
108              165              170              175
109      Asn Pro Arg Tyr Arg Thr Cys Asp Ala Phe Thr Tyr Thr Gly Cys Gly
110              180              185              190
111      Gly Asn Asp Asn Asn Phe Val Ser Arg Glu Asp Cys Lys Arg Ala Cys
112              195              200              205
113      Ala Lys Ala Leu Lys Lys Lys Lys Lys Met Pro Lys Leu Arg Phe Ala
114              210              215              220
115      Ser Arg Ile Arg Lys Ile Arg Lys Lys Gln Phe
116      225              230              235

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118 <210> SEQ ID NO: 3

119 <211> LENGTH: 30

120 <212> TYPE: DNA

121 <213> ORGANISM: Artificial Sequence

122 <220> FEATURE:

123 <223> OTHER INFORMATION: Oligonucleotide ZC4792

124 <400> SEQUENCE: 3

125 gttgttgctg ttgcctccgc agcctccgta

30

127 <210> SEQ ID NO: 4

128 <211> LENGTH: 30

129 <212> TYPE: DNA

130 <213> ORGANISM: Artificial Sequence

131 <220> FEATURE:

132 <223> OTHER INFORMATION: Oligonucleotide ZC6281

133 <400> SEQUENCE: 4

134 acagatctcc gcgttatttc ctggtggctc

30

136 <210> SEQ ID NO: 5

137 <211> LENGTH: 38

138 <212> TYPE: DNA

139 <213> ORGANISM: Artificial Sequence

140 <220> FEATURE:

141 <223> OTHER INFORMATION: Clone M-2161

142 <400> SEQUENCE: 5

143 gctgagagat tggagaagag agagatctgt ctcttgcc

38

145 <210> SEQ ID NO: 6

146 <211> LENGTH: 34

147 <212> TYPE: DNA

RAW SEQUENCE LISTING

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Input Set : N:\Crif3\RULE60\10800057.raw

Output Set: N:\CRF4\09012004\J800057.raw

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148 <213> ORGANISM: Artificial Sequence
149 <220> FEATURE:
150 <223> OTHER INFORMATION: M-2177
151 <400> SEQUENCE: 6
152      gaaacctcta gacttatatc ctccagcaag catc      34
154 <210> SEQ ID NO: 7
155 <211> LENGTH: 235
156 <212> TYPE: DNA
157 <213> ORGANISM: Homo sapiens
158 <220> FEATURE:
159 <221> NAME/KEY: CDS
160 <222> LOCATION: (77)...(235)
161 <400> SEQUENCE: 7
162      gaattccatt caagaatagt tcaaacaaga agattacaaa ctatcaattt catacacaaat      60
163      ataaacgacc aaaaga atg aag gct gtt ttc ttg gtt ttg tcc ttg atc gga      112
164      Met Lys Ala Val Phe Leu Val Leu Ser Leu Ile Gly
165      1          5          10
166      ttc tgc tgg gcc caa cca gtc act ggc gat gaa tca tct gtt gag att      160
167      Phe Cys Trp Ala Gln Pro Val Thr Gly Asp Glu Ser Ser Val Glu Ile
168      15          20          25
169      ccg gaa gag tct ctg atc atc gct gaa aac acc act ttg gct aac gtc      208
170      Pro Glu Glu Ser Leu Ile Ile Ala Glu Asn Thr Thr Leu Ala Asn Val
171      30          35          40
172      gcc atg gct gag aga ttg gag aag aga      235
173      Ala Met Ala Glu Arg Leu Glu Lys Arg
174      45          50
176 <210> SEQ ID NO: 8
177 <211> LENGTH: 53
178 <212> TYPE: PRT
179 <213> ORGANISM: Homo sapiens
180 <400> SEQUENCE: 8
181      Met Lys Ala Val Phe Leu Val Leu Ser Leu Ile Gly Phe Cys Trp Ala
182      1          5          10          15
183      Gln Pro Val Thr Gly Asp Glu Ser Ser Val Glu Ile Pro Glu Glu Ser
184      20          25          30
185      Leu Ile Ile Ala Glu Asn Thr Thr Leu Ala Asn Val Ala Met Ala Glu
186      35          40          45
187      Arg Leu Glu Lys Arg
188      50
190 <210> SEQ ID NO: 9
191 <211> LENGTH: 17
192 <212> TYPE: DNA
193 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:
195 <223> OTHER INFORMATION: Nor-1478
196 <400> SEQUENCE: 9
197      gtaaaacgac ggccagt      17
199 <210> SEQ ID NO: 10
200 <211> LENGTH: 21

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Input Set : N:\Crif3\RULE60\10800057.raw
 Output Set: N:\CRF4\09012004\J800057.raw

```

201 <212> TYPE: DNA
202 <213> ORGANISM: Artificial Sequence
203 <220> FEATURE:
204 <223> OTHER INFORMATION: NOR-2523
205 <400> SEQUENCE: 10
206      tctcttctcc aatctctcag c                               21
208 <210> SEQ ID NO: 11
209 <211> LENGTH: 35
210 <212> TYPE: DNA
211 <213> ORGANISM: Artificial Sequence
212 <220> FEATURE:
213 <223> OTHER INFORMATION: M-2162
214 <400> SEQUENCE: 11
215      cttttactct agacttactt tggcgcgag aagcc                35
217 <210> SEQ ID NO: 12
218 <211> LENGTH: 10
219 <212> TYPE: PRT
220 <213> ORGANISM: Artificial Sequence
221 <220> FEATURE:
222 <223> OTHER INFORMATION: N-terminal
223 <400> SEQUENCE: 12
224      Asp Ala Ala Gln Glu Pro Thr Gly Asn Asn
225      1          5          10
227 <210> SEQ ID NO: 13
228 <211> LENGTH: 8
229 <212> TYPE: PRT
230 <213> ORGANISM: Artificial Sequence
231 <220> FEATURE:
232 <223> OTHER INFORMATION: N-terminal
233 <400> SEQUENCE: 13
234      Ala Gln Glu Pro Thr Gly Asn Asn
235      1          5
237 <210> SEQ ID NO: 14
238 <211> LENGTH: 165
239 <212> TYPE: DNA
240 <213> ORGANISM: Artificial Sequence
241 <220> FEATURE:
242 <221> NAME/KEY: variation
243 <222> LOCATION: (0)...(0)
244 <223> OTHER INFORMATION: Kunitz domain
245 <220> FEATURE:
246 <221> NAME/KEY: variation
247 <222> LOCATION: (1)...(3)
248 <223> OTHER INFORMATION: Codon-1 Wherein the nucleotide triplet 1-3
249      encodes any amino acid except cysteine.
250 <220> FEATURE:
251 <221> NAME/KEY: variation
252 <222> LOCATION: (4)...(6)
253 <223> OTHER INFORMATION: Codon-2 Wherein the nucleotide triplet 4-6

```

RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 09/01/2004

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:14; N Pos. 1,2,3,4,5,6,160,161,162,163,164,165

Seq#:15; Xaa Pos. 1,2,54,55

VERIFICATION SUMMARY

PATENT APPLICATION: **US/10/800,057**

DATE: 09/01/2004

TIME: 12:59:09

Input Set : **N:\Crf3\RULE60\10800057.raw**

Output Set: **N:\CRF4\09012004\J800057.raw**

L:15 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:17 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
L:266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
M:341 Repeated in SeqNo=14
L:288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
M:341 Repeated in SeqNo=15